

HEAT INSULATING MOLD STRUCTURE FOR INJECTION MOLDING OPTICALDISC

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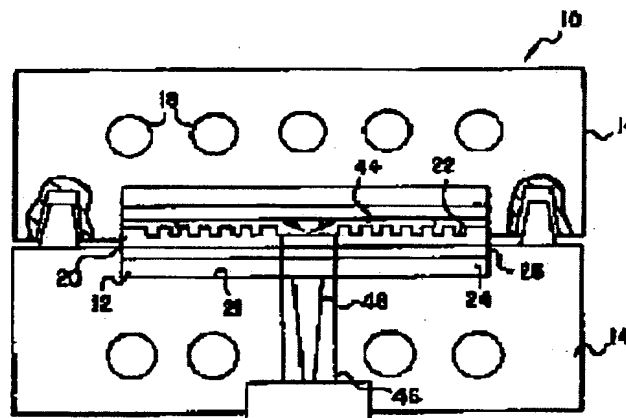
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Abstract of JP7178774

PURPOSE: To provide an injection or injection compression molding method suppressing the molecular orientation or residual stress of an optical disk resin substrate and enhancing the optical characteristics or pit transfer properties thereof. **CONSTITUTION:** A detachable heat insulating mold insert 12 is arranged on the rear surface of a stamper. This insert 12 is equipped with a heat insulating layer 24 such as a polyimide film with a thickness of about 2-20 mil and can be equipped with a cover layer 26 made of a hard metal subjected to mirror surface finish with respect to the stamper 20. Further, the insert can be equipped with a primer layer wherein metal particles having the same quality as the cover layer 26 are dispersed in a polymer binder in order to increase the adhesiveness of the cover layer 26 and the heat insulating layer. The heat from the high temp. resin 44 injected into a mold is temporarily held to the surface of the mold by the mold insert to prevent the damage of flowability of the resin and, therefore, the optical characteristics and pit transfer properties of a molded article are enhanced.



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